

CLAIMS

Patent Claims:

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1. Device (20) to generate images, with
- a projector unit (13) to project image information assigned to several pictures onto strip-shaped photographic material (22) and
 - a controller (15) to generate control signals to project marks (34, 36 - 39) that may be used to cut the strip-shaped photographic material (22), and that indicate the direct cutting positions for the cut,
- characterized in that
- the projector unit (13) receiving the control signals is connected with the controller (15), and
 - the projector unit (13) is so configured that it also projects the marks (34, 36 - 39) that may be used for cutting and are dependent on the control signals onto the strip-shaped photographic material (22).
2. Device according to one of the previous claims, characterized in that the projector unit (13) is so equipped that it projects one or more marks that may be

used for cutting as encoded marks (36 - 39) onto the strip-shaped photographic material (22), and these encoded marks (36 - 39) contain additional information.

3. Device according to Claim 2, characterized in that the projector unit (13) projects at least one of the encoded marks (36 - 39) configured as a beginning-of-order or end-of-order mark (39) onto the strip-shaped photographic material (22), and that this mark (36 - 39) indicates the first or last picture of an order to be printed.

4. Device (20) to generate images with

- a projector unit (13) to project image information assigned to several pictures onto strip-shaped photographic material (22),

characterized in that

- the device includes a controller (15) to generate control signals to project marks (54) that may be used to designate test information (57), whereby the projection of image information may be monitored by means of the test information (57),

- the projector unit (13) receiving the control signals is connected with the controller (15), and
 - the projector unit (13) is so configured that it also projects both the test information (57) as well as the marks (54) that may be used to designate the test information (57) onto the strip-shaped photographic material (22).
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5. Device as in Claim 4, characterized in that the marks (54) that may be used to designate test information (57) contain at least one piece of identifying information for the device (20).

6. Device as in Claim 4 or Claim 5, characterized in that the marks (54) that may be used to designate test information (57) contain at least one bar code.

7. Device as in one of claims 4 - 6, characterized in that the test information (57) contains various gray-scale shades.

8. Device as in one of claims 4 - 7, characterized in that the controller (15) is further configured to generate control signals to project marks (34, 36 - 39) that may be

used for cutting the strip-shaped photographic material (22), and that the projector unit (13) is so configured that it projects dependent on these control signals for the projection of marks (34, 36 - 39) that may be used for cutting the strip-shaped photographic material (22) in addition to the marks (34, 36 - 39) that may be used for cutting.

9. Device as in one of the previous Claims, characterized in that the projector unit (13) projects the image information row by row.

10. Device as in one of the previous Claims, characterized in that the projector unit (13) includes an exposure means to expose the light-sensitive photographic material.

11. Device as in Claim 10, characterized in that the projector unit (13) includes lasers.

12. Device as in one of the previous Claims, characterized in that it includes transport means (11, 14) to transport the strip-shaped photographic material (22), and that the projector unit (13) is so configured that the marks (34, 36 - 39) are accurately projected onto the strip-shaped photographic material (22) when the transport means (11,

14) transports the strip-shaped photographic material (22) into the area of the projector unit (13).

13. Device to generate images, in which:

- image information assigned to several pictures are projected from a projector unit (13) onto strip-shaped photographic material (22), and
- control signals used to project marks (34, 36 - 39) that may be used for cutting of the strip-shaped photographic material (22) and that exactly indicate the cutting positions for the cutting are generated by the controller (15)

characterized in that

- the control signals generated by the controller (15) are received by the projector unit (13), and
- the marks (34, 36 - 39) that may be used for cutting are projected onto the strip-shaped photographic material (22) dependent on the control signals from the controller (15).

14. Device to generate images in which

- image information assigned to several pictures is projected onto strip-shaped photographic material (22) by means of a projector unit (13),

characterized in that

- control signals for the projection of marks (54) that may be used to designate test information (57), whereby the projection of the image information may be monitored via the test information (57)

- control signals generated by the controller (15) are received by the projector unit (13), and

- both the test information (57) and the marks used to designate test information are projected onto the strip-shaped photographic material (22) by the projector unit (13) in dependence upon the control signals.

15. System (10) to generate images with

- a device (20) to generate images based on one of Claims 1 to 7 or on Claim 12,

- a detector (24) to detect marks (34, 36 - 39) projected onto strip-shaped photographic material (22) that may be used to cut the strip-shaped photographic material (22), and
- a cutter (17) to cut the strip-shaped photographic material (22) onto which the image information was projected into individual pictures, whereby
- the cutter (17) so configured that it cuts the strip-shaped photographic material (22) dependent on detection of the marks (34, 36 - 39) by the detector (24) directly at those positions at which the marks are projected onto the strip-shaped photographic material.

16. System as in Claim 15, characterized in that the detector (23, 24) is positioned in the area of the cutter (17).

17. System as in Claim 15 or 16, characterized in that it contains a sorter (25) to sort the individual pictures, and that sorts these individual pictures dependent on additional information in the encoded marks (36 - 39).

18. System (10) to generate images with

- a device (20, 71, 81) to generate images as in one of Claims 8 through 12,
- an evaluator (130) to evaluate the test information (57) projected onto the strip-shaped photographic material (22), and
- a detector (120) to detect the marks (54) projected onto the strip-shaped photographic material (22) that designate the test information (57), and
- an adjustor (73) to adjust the projection of the image information via the device (20, 71, 81) dependent on the evaluation of the test information (57) and the detection of the marks (54) used to designate the test information (57).

19. System (10) as in Claim 18, characterized in that it contains several devices (20, 71, 81) as in Claims 8 through 12.

20. System as in Claim 18 or 19, characterized in that the evaluator (130) is connected with the device or several devices (20, 71, 81) via a network (100).

21. System as in one of Claims 18 through 20,
characterized in that the evaluator (130) is a
densitometer.

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